

Handwritten signature

Notice of Allowability

Application No.

10/016,667

Applicant(s)

UEDA ET AL.

Examiner

Leo Boutsikaris

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 6/3/04.
2. ☒ The allowed claim(s) is/are 7-16.
3. ☒ The drawings filed on 26 October 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 08/532693.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on 6/7/2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent No. 5,808,795 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

Claims 7-16 are allowed.

Claims 7-16 are allowable over the prior art of record for at least the reason that even though the prior art discloses polarizing beam splitters comprising multiple multilayered films, each multilayered film comprising a laminate of dielectric layers with alternate refractive indices, all the films being designed for the same wavelength, the prior art fails to teach or reasonably suggest a polarizing beam splitter comprising a first dielectric multilayer film comprising an alternate layer which includes a first high-refractive layer and a first low-refractive index layer each having a design reference wavelength λ_1 and a second dielectric multilayer film comprising an alternate layer which includes a second high-refractive layer and a second low-refractive index layer each having a design reference wavelength λ_2 , wherein the design reference wavelength λ_2 is different from the design reference wavelength λ_1 , as set forth by the claimed combination.

Art Unit: 2872

Van Der Wal (US 6,014,255, Fig. 3), Sannohe (US 5,453,859, Fig. 2), Sawamura (US 4,320,936, Fig. 12A) disclose polarizing beam splitters comprising dielectric layers of three different refractive indices, all designed for the same design wavelength. Kusaka (US 5,076,675, Fig. 2) discloses a PBS comprising dielectric layers having two alternate refractive indices designed for the same wavelength.

Masubuchi (US 6,791,750, Fig. 3) and Tani (US 5,967,635, Fig. 4B) disclose a PBS comprising a first multilayer portion at a first design wavelength and a second multilayer portion at a second design wavelength, where the two design wavelengths are different from each other. However, none of the above references is a prior art reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Leo Boutsikaris whose telephone number is 571-272-2308.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo Boutsikaris, Ph.D., J.D.
Primary Patent Examiner, AU 2872
June 10, 2005


LEONIDAS BOUTSIKARIS
PRIMARY EXAMINER